

TITLE: A SELECTIVE POSITION CONTROL SYSTEM AND METHOD

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Abstract

A Selective Position Control system and method is disclosed. The system includes a Processor, a Remote Control with a programmable Toggle switch, a remote Solenoid Valve, in conjunction with interacting valving, a remote Potentiometer or Ultra-Sonic device, and necessary wiring.

The design of Selective Position Control interfaces with the tractor's manual hydraulic lever operations which raise or lower trailing equipment by affecting cylinder extensions or retractions. The system is separate from the tractor hydraulic system but interfaces by energizing an inline remote Solenoid Valve, at a programmed set point, that stops oil flow and causes the manually detented tractor hydraulic valve to center from a working position.

Selective Position Control's Processor establishes two programmable Toggle switch position settings, one typically slaved to the other, correctable on-the-go, plus a full raise mode for trailing equipment. The system accommodates other manually activated positions, up or down, from programmed positions, with return to set points of programmed positions.

The Remote Control incorporates a Toggle device with three positions, an up/down Rocker switch, a Set switch and an LED readout. Design requires positioning of the Toggle device prior to the normal use of the tractor hydraulic valve. This is a stand alone system with universal application to tractors and implements using a single cylinder, a series or torque tube synchronized cylinders.

Figure 1	Processor
Figure 2	Remote Control
Figure 3	Hydraulic Schematic
Figure 3A	Hydraulic Schematic
Figure 3B	Hydraulic Schematic
Figure 4	Potentiometer
Figure 5	Ultra-Sonic
Figure 6	Programmable Logic Control
Figure 7	Overall View

Nine Drawings, 22 Claims